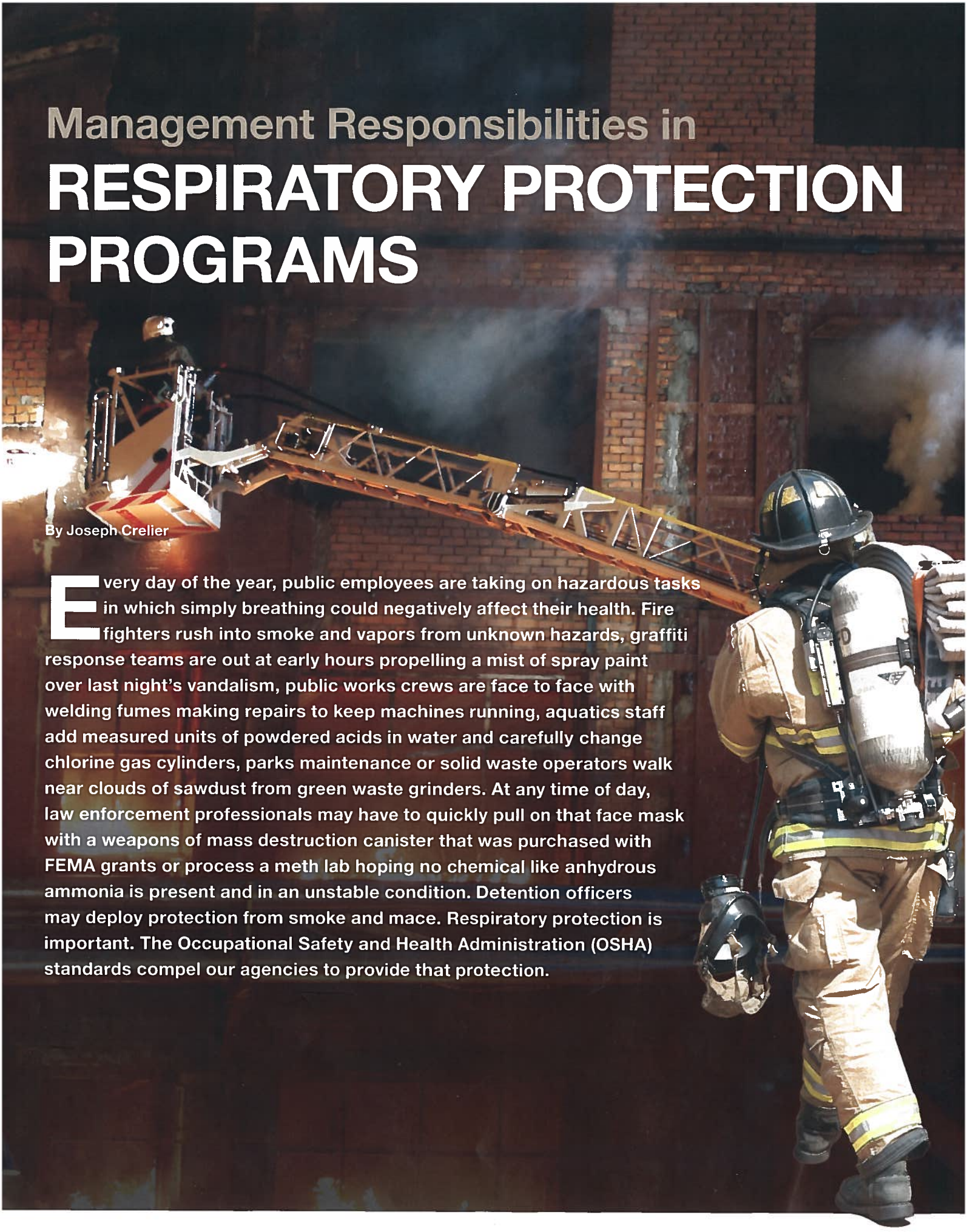
Management Responsibilities in RESPIRATORY PROTECTION PROGRAMS



By Joseph Crelier

Every day of the year, public employees are taking on hazardous tasks in which simply breathing could negatively affect their health. Fire fighters rush into smoke and vapors from unknown hazards, graffiti response teams are out at early hours propelling a mist of spray paint over last night's vandalism, public works crews are face to face with welding fumes making repairs to keep machines running, aquatics staff add measured units of powdered acids in water and carefully change chlorine gas cylinders, parks maintenance or solid waste operators walk near clouds of sawdust from green waste grinders. At any time of day, law enforcement professionals may have to quickly pull on that face mask with a weapons of mass destruction canister that was purchased with FEMA grants or process a meth lab hoping no chemical like anhydrous ammonia is present and in an unstable condition. Detention officers may deploy protection from smoke and mace. Respiratory protection is important. The Occupational Safety and Health Administration (OSHA) standards compel our agencies to provide that protection.

As the risk manager, you represent the employer, and the employer has a lot of responsibilities. So what are your obligations to protect staff from these hazards, to comply with OSHA standards, and protect the entity from non-compliance fines? How does all this get done? And the universal management question, how much is this going to cost?

WHERE TO START?

The responsibilities and obligations are in the OSHA standards, 29 CFR 1910.134; this is where you need to start. Out of all the requirements in the standard, one of the first is the clearest for management: "*The employer shall designate a program administrator who is qualified by appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness,* "There is much more to know, but right off the bat, the standard is essentially telling you to delegate. The goal of this article is also to say delegate, and to empower and budget.

Beyond delegating to a designated program administrator of your choosing, at least a dozen additional obligations in the standards go on to state the employer shall develop a written program, identify affected employees, measure or estimate the respiratory hazards and have a method for selecting respiratory protection equipment. Entities must develop a schedule for changing out respirator canisters, ensure maintenance and proper storage of equipment, provide compressed air to a quality known as Grade D, identify a licensed health care professional to have affected employees medically cleared for respirator use and provide annual training. The list goes on to include arrange annual quantitative or qualitative fit testing, and conduct an annual program evaluation. You really need a program administrator, and he or she is going to be busy.

Developing a program administrator is important. There is tremendous potential for carry-over of their knowledge into developing or enhancing the overall safety culture in an entity. After all, you are developing a subject matter expert. Finding a program administrator is crucial of course, but should be an encouraging task as well. For starters, a college degree is not required and initial training can be quick. As you set out to find a program administrator, seek out interested individuals or consider staff you know are inclined to take on a challenge and desire more responsibility to promote their own career. Fire departments have the most potential for staff with expertise due to their complex working knowledge and most frequent experience. In fact, full-time fire departments are likely filling all obligations of the OSHA standards and will be great allies as other operational areas (sheriff, detention, aquatics, etc.) need to be brought into compliance. Look to these operational areas for candidates for the program administrator or resolve to designate a safety professional in your risk management ranks.

Once designated, supply your budding subject matter expert with additional resources such as a template for the written program from the PRIMA Cybrary, reference materials, connections with peers in other entities, and encouragement to visit with industry providers. Direct the program administrator to build supportive relationships internally with purchasing and human resources. They will need cooperation as they build the program and complete milestones such as contracting with licensed health care professionals, issuing bids for best prices on supplies, coordinating training events and ensuring completed training records are in personnel files. OSHA Outreach training centers across the country offer a course titled OSHA #2225 – Respiratory Protection. Find the soonest and most convenient offering of this course and ensure your program administrator completes it; there is no pre-requisite. Don't forget to set goals and reporting progress deadlines. As you affect these empowering resources and learning events on your program administrator, he or she will quickly develop the whole program and fulfill the numerous employer obligations for which you are liable.

Developing a program administrator is important. There is tremendous potential for carry-over of their knowledge into developing or enhancing the overall safety culture in an entity. After all, you are developing a subject matter expert. Finding a program administrator is crucial of course, but should be an encouraging task as well.

Putting all of the obligations into a spreadsheet starts to visually capture the cost of this program. Chart I shows a simple respiratory protection plan with 10 graffiti mitigation employees using inexpensive half-face negative pressure respirators. In this example, three employees are new hires and need medical clearance and new respirators. All 10 need new organic vapor and dust cartridges this year. Medical clearance can be granted for more than one year at a time. For this group, those costs are reflecting at zero for the seven existing employees. All 10 need annual fit testing, annual training costs are calculated at zero due to in-house training and assume there is already a qualified trainer on staff. In this example, an established program with a few new staff each year might cost around $1,100.

CHART 1: Cost worksheet for Graffiti Crew annual respiratory protection program

Cost Element	Unit Cost	Unit Description	# of Units	Extended Costs
New respirator	$45	Half-face negative pressure marks	3.0	$135
One year supply of cartridges	$30	Air purifying cartridges that protect against organic vapor and nuisance dusts	10.0	$300
Cleaning and storage supplies	$50	Storage bags and cleaning supplies for whole crew	1.0	$50
Review of medical questionnaire and/or medical evaluation	$50	Review by Licensed Health Care Professional to medically clear a respirator user	3.0	$150
Annual Quantitative Fit Test (contracted)	$45	Fit testing using a quantitative fit testing system	10.0	$450
Annual user training (provided in-house)	$0	Annual training for respirator users	10.0	$0
Other or miscellaneous			0	$0
			Total	$1,085

Chart II shows a complex respiratory protection plan for a 200-person fire department with additional state requirements for an annual physical and illustrates upgrading 10 percent of the department SCBA units each year (costs are general estimates for reference). The chart assumes the department has already invested in a quantitative fit test system and at least one grade D air compressor (both are sizable investments). Cost will vary greatly depending on the size of a program and savings are realized with in-house training, in-house fit testing and negotiated contract prices for annual medical exams/clearance. In this example, annual costs are substantial, over $140,000.

CHART 2: Cost worksheet for Fire Department annual respiratory protection program

Cost Element	Unit Cost	Unit Description	# of Units	Extended Costs
New SCBA unit	$5,000	Self-contained breathing apparatus, upgrade 10% of inventory annually	20.0	$100,000
Cleaning and storage supplies	$50	Cleaning and storage supplied for 10 stations	10.0	$500
Annual fire fighter physical	$200	Annual fire fighter physical, includes respirator medical clearance	200.0	$40,000
Annual Quantitative Fit Test (in-house)	$0	Annual fit testing using a quantitative fit testing system	200.0	$0
Annual user training (provided in-house)	$0	Annual training for respirator users	200.0	$0
OSHA #2225 Respiratory Protection Course	$595	Development course for program administrator(s)	2.0	$1,190
Other or miscellaneous				
			Total	$141,690

Although quantitative fit testing equipment is a significant investment and the only acceptable fit test method for SCBA units, equipment can be purchased for qualitative fit testing at only a few hundred dollars and may be a cost-saving option for some entities. Using a spreadsheet as a budget tool helps itemize the costs, making it easier to explain and is preferable to simply presenting one overall, and potentially ambiguous cost for budget approval. Although not required by OSHA in the written plan, consider directing your program administrator to include the budget worksheet.

There are some very good resources for your reference and for your program administrator to study. Two mandatory external resources include OSHA.gov, and websites of respiratory protection manufacturers. On the OSHA website, find "respiratory protection" in the A-Z index. Results will include instructional videos, a Power Point presentation, FAQ's, and a very useful Small Entity Compliance Guide. Manufacturers' web sites often include cartridge change out calculators, instructional videos for equipment cleaning, respirator seal check videos and other information. Contracted Occupational Medicine providers and your entity's fire department will most likely be your most reliable in-person references. Reach out to industry and trade group peers such as other public entities and PRIMA.

When you find yourself looking back at a successful program, consider what else you can do. There are strong and permanent steps to ingrain the program as an institution in your entity. Consider writing the program administrator tasks into the duties and responsibilities of a job description, such as "serves as the program administrator for OSHA compliant respiratory protection programs." Or, identify a variety of job titles in the OSHA required written program such safety manager, aquatics manager, SWAT lieutenant, fire and rescue division chief, as those with the program administrator responsibilities for those operational areas. Even further, consider developing a performance measure for staff to reach, such as how many annual refresher courses are available per quarter and per year. As you designate responsibilities and learn to budget for this program, you will discover respiratory protection is a well established industry with readily available free guidance, experts on hand in your contracted business partners, and participants who all want your program to succeed. It can appear complex at times, but each element is manageable. Develop and encourage subject matters experts, and tell them to bring that written plan to the budget review meeting. ■

Joe Crelier is the risk management director for Bernalillo County in Albuquerque, NM and vice-chair of the New Mexico Association of Counties, Workers' Compensation Insurance Pool Board.